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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MORGAN, LEWIS & BOCKIUS LLP (SF)
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EXAMINER

JONES, DAMERON LEVEST

ART UNIT	PAPER NUMBER
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1618

MAIL DATE	DELIVERY MODE
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10/13/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,178	RAYMOND ET AL.	
	Examiner	Art Unit	
	D. L. Jones	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-47 is/are pending in the application.
- 5a) Of the above claim(s) 3,5,6,11,12,23-35 and 39 is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1,2,4,7-10,13-22,36-38 and 40-47 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

ACKNOWLEDGMENTS

1. The Examiner acknowledges receipt of the amendment filed 7/29/11 wherein claims 1, 15, 16, 19, and 36-38 were amended and claims 40-47 were added.

Notes: Claims 1-47 are pending.

WITHDRAWN CLAIMS

2. Claims 3, 5, 6, 11, 12, 23-35, and 39 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention/species.

RESPONSE TO APPLICANT'S AMENDMENT/ARGUMENTS

3. The Applicant's arguments and/or amendment filed 7/29/11 to the rejection of claims 1, 2, 4, 7-10, 13-22, and 36-38 made by the Examiner under 35 USC 102, 112, and/or double patenting have been fully considered and deemed persuasive-in-part for the reasons set forth below.

Double Patenting Rejections

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29

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USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

I. Claims 1, 2, 4, 7-10, 13-22, 36-38, and 40-47 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 11/839,509. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are directed to compounds having multiple triamine substituted aromatic rings (e.g., see Applicant's elected species and claim 2 of the copending application). Thus, the skilled artisan would recognize that the inventions disclose overlapping species.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

APPLICANT'S ASSERTIONS

In summary, Applicant asserts that the Examiner has not performed the analysis required under Graham and has not established a prima facie case of obviousness of the present claims over the cited claims. In addition, it is asserted that the fact that the scope of the claims overlap with that of the copending application is not by itself sufficient grounds for a double patenting rejection.

EXAMINER'S RESPONSE

Applicant's arguments are non-persuasive for reasons of record in the office action mailed 2/4/11 and the reasons set forth below. First, Applicant is reminded that according to MPEP 804, a non-statutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); and *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985). In determining whether a non-statutory basis exists for a double patenting rejection, the Examiner first evaluates whether or not any claim in the application defines an invention that is anticipated by, or is an obvious variation of what Applicant is claiming in the instant invention. If the variation is obvious, then an "obviousness-type" non-statutory double patenting

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rejection may be appropriate (e.g., in situations wherein the inventions are obvious over one another and there is no restriction requirement in the parent application).

Obviousness-type double patenting requires rejection of an application claim when the claimed subject matter is **not patentably distinct** from the subject matter claimed in a commonly owned patent, or a non-commonly owned patent but subject to a joint research agreement as set forth in 35 U.S.C. 103(c)(2) and (3), when the issuance of a second patent would provide unjustified extension of the term of the right to exclude granted by a patent. See *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 58 USPQ2d 1869 (Fed. Cir. 2001); *Ex parte Davis*, 56 USPQ2d 1434, 1435-36 (Bd. Pat. App. & Inter. 2000).

When setting forth the obviousness-type double patenting rejection, the Examiner (1) determined the scope and content of the instant application and the copending application. Next, (2) the differences between the scope and the content of the instant application and the copending claim was determined. Then, (3) the claims were evaluated to determine if the modification was obvious and with the skilled level for the ordinary artisan. (4) The Examiner recognized that both the claims were not distinct from one another because both sets of claims have multiple triamine substituted aromatic rings. It should be noted that the copending claims differ from those of the instant invention (i.e., Applicant's elected species) in that the copending applications encompasses, not only the elected species, but other structurally similar species as well. Thus, it was concluded that the inventions disclose overlapping subject matter which one of ordinary skill in the art would recognize. Hence, a double patenting

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rejection was deemed appropriate and made of record. Hence, it is the Examiner's position that the proper protocol was followed in determining whether or not a double patenting rejection was proper.

II. Claims 1, 2, 4, 7-10, 13-22, 36-38, and 40-47 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 12/020,470. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are directed to compounds having multiple triamine substituted aromatic rings (e.g., see Applicant's elected species and claim 3 of the copending application). Thus, the skilled artisan would recognize that the inventions disclose overlapping species.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

APPLICANT'S ASSERTIONS

In summary, Applicant asserts that the Examiner has not performed the analysis required under Graham and has not established a prima facie case of obviousness of the present claims over the cited claims. In addition, it is asserted that the fact that the scope of the claims overlap with that of the copending application is not by itself sufficient grounds for a double patenting rejection.

EXAMINER'S RESPONSE

Applicant's attention is directed to the detailed response above as to how the Examiner determined that a double patenting rejection was appropriate.

112 Second Paragraph Rejections

I. The rejection of claims 13 and 14 for being ambiguous because of the use of polymer in the claim is WITHDRAWN.

II. The rejection of claims 15-18 for the phrase "the polymer" in line 1 lacking antecedent basis is WITHDRAWN because Applicant amended the claim to overcome the rejection.

III. The rejection of claim 19 because the claim was not further limiting is WITHDRAWN because Applicant amended the claim to overcome the rejection.

IV. The rejections of claims 36-38 for lacking antecedent basis is WITHDRAWN because Applicant amended the claims to overcome the rejections.

V. The rejection of claim 36 because was unclear what component of an ink or dye Applicant was referring to is WITHDRAWN because Applicant amended the claim to overcome the rejection.

VI. The rejection of claim 37 because was unclear what component of a substrate for the transmission and amplification of light Applicant was claiming is WITHDRAWN because Applicant amended the claim to overcome the rejection.

VII. The rejection of claim 2 because of the phrases 'protected or unprotected reactive functional groups and non-covalent protein binding groups' is WITHDRAWN.

VIII. The rejection of claims 1, 2, 4, 7-10, 13-22, and 36-38 because of the terms 'cleavable group(s)' and 'protecting group(s)' is WITHDRAWN.

The following 112 rejections are MAINTAINED.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16 and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16: The claim is ambiguous because of the phrase 'pharmaceutical agent'. In particular, it is unclear what type/group of pharmaceutical agents Applicant is referring to that may be appropriate groups for the variable A. Furthermore, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74

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(Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 16 recites the broad recitation pharmaceutical agents, and the claim also recites biopolymers, polyamino acids, polyethers, polyimines, polysaccharides, dendrimers, and cyclodextrins which are the narrower statement of the range/limitation.

APPLICANT'S ASSERTIONS

In summary, Applicant asserts that one in the art would know what substances are pharmaceutical agents. In addition, Applicant asserts that claim 16 does not contain a range within a range, but list a Markush groups.

EXAMINER'S RESPONSE

Applicant's argument is non-persuasive. The issue is not what is a pharmaceutical agent, but what agents or groups of agents is Applicant claiming that are compatible with the formula of independent claim 1. In regards to the assert that the claim does not list a range within a range, but a Markush group, the rejection is maintained. While Applicant list a Markush grouping, within that group appears the term 'pharmaceutical agent' encompasses the other terms in the group such as polyamino acids, polyethers, polyimines, polysaccharides, dendrimers, and cyclodextrins.

Claim 16: A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board

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of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 16 recites the broad recitation biopolymers, and the claim also recites polyamino acids, polyethers, and polyimines which are the narrower statement of the range/limitation.

APPLICANT'S ASSERTIONS

In summary, Applicant asserts that the claim simply list a Markush group, not a broad range/limitation within a narrower range/limitation

EXAMINER'S RESPONSE

Applicant's argument is non-persuasive. While Applicant list a Markush grouping, within that group appears the term 'biopolymers' which encompasses the other terms in the group such as polyamino acids, polyethers, and polyimines.

Claim 38: The claim is ambiguous because it is unclear what organic and inorganic polymers and combinations thereof Applicant is referring to that are compatible with the instant invention.

APPLICANT'S ASSERTIONS

In summary, Applicant asserts that paragraphs [0104] and [0129] provide support for the organic and inorganic polymers.

EXAMINER'S RESPONSE

Applicant's argument is non-persuasive. Review of paragraphs [0104] and [0129] does not set forth organic and inorganic polymers that Applicant is claiming that are compatible with the formula of independent claim 1. If Applicant is in disagreement with the Examiner, it is respectfully requested that Applicant point to page and line number wherein support/examples may be found for Applicant's terminology.

102 Rejection

The 102 rejection is WITHDRAWN because Applicant amended the claims to overcome the rejection.

NEW GROUNDS OF REJECTIONS

102 Rejection

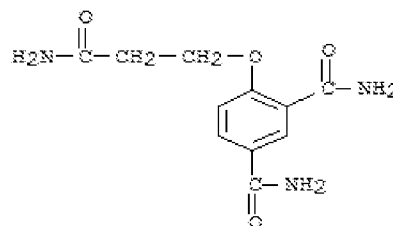
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Lichtenberger et al (Bulletin de la Societe Chimique de France, 1963, pages 275-282).

Lichtenberger et al disclose substituted beta-phenoxypropionic acids (see entire document, especially, abstract and page 277, Table 1, Triamide compounds of formula $C_{11}H_{13}O_4N_3$). The acid counterpart of the triamide has the formula (see page 277, Table I): $(HOOC)_2-C_6H_3-O-(CH_2)_2-COOH$. Thus, for the triamide compounds, the $(COOH)$ groups are replaced with NH_2 . In particular, Lichtenberger et al disclose a

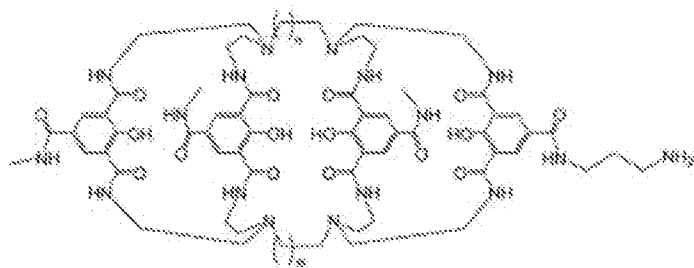


dicarboxy-2,4-triamide structure having the formula:

The structure of Lichtenberger et al fulfills the requirements of Applicant's invention when $Y1 = \text{oxygen}$; $Y3 = \text{oxygen}$, $a = 0$, $R1, R2, R3$, and $R4 = H$, and $Q = CH_2-CH_2-C(=O)-NH_2$. Thus, both Applicant and Lichtenberger et al disclose overlapping subject matter.

COMMENTS/NOTES

4. Once again, Applicant's election of Group I filed 1/10/11 is acknowledged. In addition, the Examiner once again acknowledges receipt of Applicant's election of the species



. Claims 1, 2, 4, 7-10, 13-22, 36-38,

and newly added claims 41-47 read on the elected species. Initially, Applicant's elected

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species was search. While no prior art was found, it should be noted that the elected species is rejected under double patenting. The search was expanded to the species of Lichtenberger et al (Bulletin de la Societe Chimique de France, 1963, pages 275-282) disclosed above. The search was not further extended because prior art was cited which reads on Applicant's invention.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. L. Jones whose telephone number is (571)272-0617. The examiner can normally be reached on Mon.-Fri., 6:45 a.m. - 3:15 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. L. Jones/
Primary Examiner
Art Unit 1618

October 7, 2011